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ABSTRACT

A discussion of Italian comparatives of inequality examines the use of "che" and "di" in introducing the comparison. It begins by looking at and discounting the semantic explanation for the different structures and then outlines the comparative rules for use of "che" and "di." It examines regular and problematic structures and restrictions, with reference to previous research. (MSE)

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ITALIAN COMPARATIVES OF INEQUALITY WITH CHE AND DI.*

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1.0 The Basic Data

The object of this paper is to examine a specific set of comparative structures in Italian, those which are termed comparatives of inequality. For ease of reference it will be considered that comparative structures of this kind are constructed along the lines shown here:

$[_{XP}$ or $[_{S}$ ... Quantifier X'$[_{head}$ $_{\alpha}$ Introducer $[_{\alpha}$ Target of comparison]]

The head of a comparative structure may be a phrasal constituent of any syntactic type (i.e. Adv., Adj., Noun, Verb) which is modifed by a quantifier of adverbial or adjectival status or an S which ultimately contains a quantified XP. The head of the comparison is followed by a complement whose exact syntactic status must be left vague at this stage, hence the label α ; it is this complement which will be referred to loosely as the target of comparison. The target of comparison in Italian can be introduced by the two lexical items che and di; at this stage these will be loosely referred to as introducers, meaning quite simply that their function in this syntactic structure is to introduce the target of comparison.

In Italian, comparatives of inequality are marked by the quantifier adjective/adverbs più (more) and meno (less). In one type of comparative structure in which these items are found the target of comparison is introduced by the lexical item che as in the example given under (1):

(1)(a) Maria è più intelligente che bella.
M is more intelligent than beautiful

(b) C'è meno gioia che tristezza.
there is less joy than sorrow

In the terms of the syntactic model in which this paper is cast, the data shown in (1) are taken as being instantiations permitted by one of the comparative rules. The data in (2) illustrate a second kind of comparative structure to be found in Italian:

(2)(a) Giovanni è meno intelligente di Giacomo.
G is less intelligent than G

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(b) La crema è più gustosa della torta.1
the cream is more tasty than-the cake

In these two examples the same two quantifiers are to be found as in the structures in (1), but instead of the target of comparison being introduced by che, there is a constituent which in its surface forms appears very much like a PP introduced by the preposition di (of). Examples with the target of comparison introduced by di are to be instantiated by a comparative rule which is distinct from that which instantiates structures of the kind shown in (1).

1.1 A Semantic Difference?

Before giving a syntactic analysis of these two structures, it would be wise to dispense with one line of reasoning which might seek to distinguish these different structures on semantic grounds. It is not beyond the bounds of possibility that che and di might correspond to different scope possibilities for comparative structures (see Pinkham 1982 pp. 86-94) for a justification of the notion of scope with respect to comparative structures). However if comparative structures with che were semantically distinct from those with di, then it would be predicted that they would never be in free variation in contexts which were otherwise synonymous. This prediction is false because such contexts do indeed exist:

(3) (a) Apprezza più le stampe {che i quadri / dei quadri}
(Lepschy and Lepschy 1977: 107).
(he) appreciates more (the) prints than (the) paintings

(b) C'è più vento questo mese {del mese scorso. / che il mese scorso.}
there's more wind this month than (the) last month

(c) Mi piace più la carne {che il pesce. / del pesce.} (ibid.)
to-me pleases more the meat than the fish

In fact there does seem to be a degree of interchangeability which usually allows di to be replaced by che (but not vice versa). Some of the resulting configurations are considered however to be odd, if not out and out ungrammatical:

(4) (a) ? Mario è più bello che Maurizio.
Mario è più bello di Maurizio.
M is more handsome than M

(b) ? Claudio mangia più carne che il suo cane.
Claudio mangia più carne del suo cane.
eats more meat than the his dog

Also when an oblique pronoun follows di introducing a target of comparison, then di and che are no longer in free variation:

(5) (a) Giovanni mangia più pane di te / di me.
G eats more bread than you / than him

(b) *Giovanni mangia più pane che te/ che me.

In later discussion it will be shown that the problems encountered in (5) can be accounted for syntactically. The preference for di in (4) is not considered to be due to the syntactic structures involved but rather to stylistic factors. Indeed in certain registers of Italian, which Fornaciari 1972: 352 refers to as "nobile ed elegante" (noble and polished), it is claimed that the possibility of che introducing the target of comparison is preferred to that of di. Unfortunately the only examples to be found are those given by Fornaciari himself and these are taken from 15th century literary texts, so their value with respect to usage in the contemporary language is somewhat dubious. Here are the examples anyway:

(6) (a) Una donna più bella assai che'l sole
a woman more beautiful truly than the sun
(possible also: Una donna più bella assai del sole)
(Petrarch, cit. Fornaciari)

(b) Pareami ch'ella fosse più che la neve bianca
(it)seemed to-me that she was more than the snow white
(more natural today: Mi pareva che ella
fosse più bianca della neve)
(Boccaccio, cit. ibid.).

In as far as stylistic differences are not to be considered semantic differences and considering that the scope relations remain the same if che is substituted for di in all the examples in (3), (4) and (6), then it seems justifiable to say that these two introducers do not affect the semantics of strings in which they appear.

A final set of data (also mentioned in Fornaciari) which confirm this conclusion are contexts where che is preferred to di because the use of di would produce ambiguity, that is to say where the use of di could be interpreted either as a PP complement to a quantified head noun or adjective, or as the target complement of a comparative. Examples are shown in (7) where the comparative reading in (b), (d) and (f) is to be preferred:

(7) (a) Io sono meno soddisfatto di Giulia.
I am less satisfied than G
or I am less satisfied with G

(b) Io sono meno soddisfatto che Giulia.
I am less satisfied than G

(c) Venderanno più libri di Umberto Eco.
(they)'ll sell more books than U E
or (they)'ll sell more books of U E

(d) Venderanno più libri che Umberto Eco.
(they)'ll sell more books than U E

(è) Mi piace di più la sorella di Giovanni.
to-me pleases more the sister than G
or to-me pleases more the sister of G

(f) Mi piace di più la sorella che Giovanni
to-me pleases more the sister than G

These data can be taken as confirming the view set out above that where the comparative rule instantiating di as an introducer is possible there is also an alternative string instantiated by the comparative rule introducing che. The alternative using di may in certain styles and registers be the preferred one, but the use of che is acceptable when ambiguity may arise (see further discussion of this point in 3.1.1.1). Thus it is to be concluded that there is no semantic difference between comparative structures with introducers di or che, and this conclusion is taken as a justification of the approach of this paper which is to propose that Italian has two syntactically distinct ways of instantiating the comparative of inequality. The question of the semantics of this comparative structure in Italian will not be dealt with here, but it is considered that an approach similar to that put forward in Klein 1980 could be adapted to this language. Incidentally the idea that languages may have more than one syntactic process for comparative formation is not new in literature of modern Linguistics (see Hankamer 1973 and Pinkham 1982).

2.0 Comparative Rules for the Introducer CHE

The syntactic framework in which this study is cast is that of Generalised Phrase Structure Grammar as laid out in Gazdar and Pullum 1982 and in particular Gazdar 1980 where the comparative structures of English are specifically dealt with. An awareness of the basic concepts of this approach to grammar is assumed. The rules to be proposed in this section are those necessary for the instantiation of one type of comparative structure whose target of comparison is introduced by che. To deal with comparative structures using che, the following basic schema is proposed:

CAT ----) CAT CAT[+/- SLASH]
[p]

In this rule schema CAT = any syntactic category, [p] represents a syntactic operator, in this case the che which introduces the target of comparison, and CAT[+/-SLASH] is a rather idiosyncratic way of showing in the most general way the possibility that in one class of che comparative structures in Italian a SLASH dependency could plausibly be argued for.

An advantage of this approach is that the analysis need not become overconcerned with the categorial status of the che found in comparatives: it is quite simply an operator which forms part of the compared phrase. This is the position adopted in Chomsky and Lasnik 1977 and Gazdar 1980, but for differing points of view on the status of the item introducing the target of comparison see Kayne (1976: 277-8, 297) on que in French which he considers to be a manifestation of the general complementizer of that language and Chomsky (1977: 88) where than in English comparatives is taken to be a preposition.

The first rule to be proposed is designed to deal with comparative structures of the kind shown in (8) below:

(8) (a) Maria è più bella che intelligente.
M is more beautiful than intelligent

(b) Più uomini che donne sono stati intervistati al
more men than women have been interviewed on the
telegiornale.
news bulletin

(c) Paolo scrive più rapidamente che correttamente.
P writes more rapidly than precisely

Examples of the type shown in (9) which, it is claimed, are different from those shown in (8), will be examined in 2.3:

(9)(a) Questo gravissimo incidente è stato più un errore
this very-grave accident has been more an error
delle autorità municipali che colpa degli inquilini
of-the authorities municipal than fault of the
tenants

(b) E' meno sulla tovaglia che sotto la tavola
(it)is less on the tablecloth than under the table
che si è sparso il vino.
that itself has spilled the wine

The following rule (based on the schema shown earlier) is proposed in order to instantiate structures of the kind shown in (8) (for proposals similar, though not identical to this one see Lozano and Pinkham 1984: 5):

CHE Comparative Rule 1 (first version)

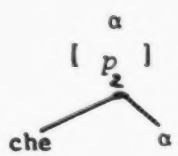
$$X \rightarrow X\ [p_1]\ \ \alpha\ [p_2]$$

where $p \in \{\langle$più, che$\rangle, \langle$meno, che$\rangle\}$

$X'' \in \{A'', N'', Adv''\}$,

$\alpha \in \{X''/specX'\}$

By convention it is assumed here that double-bar categories are maximal projections (see Borsley 1983). The features $[p_1]$ $[p_2]$ are the first and second members of the ordered pairs più...che and meno...che. This Immediate Dominance (I.D.) rule can be interpreted as follows: a maximal lexical projection dominates two categories, one of which contains the feature $[p_2]$. The other category (α) will have to have the same kind of category features as the overall constituent with the exception that a SLASH feature is included among its specifications. The category marked 'α' will be instantiated with the feature $[p_2]$, giving trees like the following:



In order to understand more clearly the form of the phrase marked 'α' (i e the target of comparison), it is necessary to account for the fact that in comparative structures such as those in (8) the NP, AP or AdvP in the target of comparison cannot appear with any overt quantification, nor can the NP occur with determiners. The data in (10) illustrate these points:

(10) (a) *Più uomini che molte donne hanno fatto domanda.
more men than many women have made (an) application

(b) *Più uomini che le donne hanno fatto domanda.
more men than the women have made (an) application

(c) *Maria è più bella che tanto intelligente.
M is more lovely than so intelligent

(d) *Maria scrive meno rapidamente che molto correttamente
M writes less quickly than very correctly

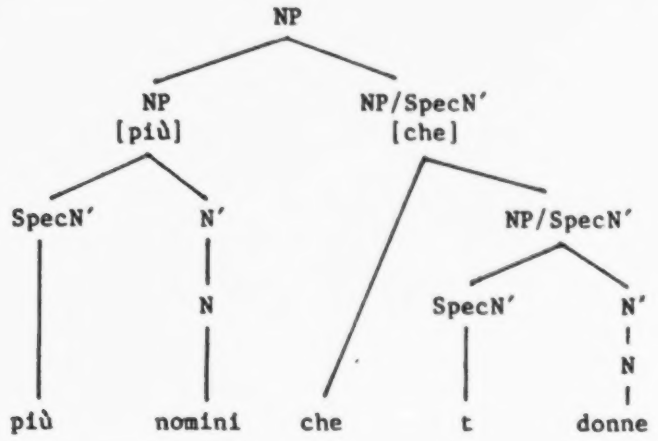
The impossibility of overt lexical material occurring in pre-head position in this type of structure's target of comparison suggests, as noted in Gazdar 1980, that the

SpecX′ node in the following rule should be interpreted as a SLASH dependency:

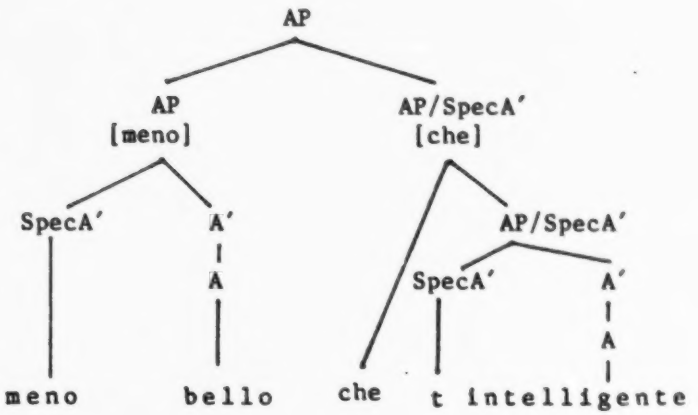
(11) X′′ ----) SpecX′ X′

Thus trees such as those shown in (12) would be instantiated with SLASH dependencies within the target of comparison:

(12) (a)



(b)



Because of the obligatory SLASH dependency shown here, it would be impossible to instantiate data such as those shown in (10).

The kinds of comparative being examined here are instantiated by rules of a similar kind (though not identical) to those which instantiate co-ordinate structures. Notice that the rule framework proposed here stipulates that the mother and the daughters must share a degree of categorial similarity. Indeed the Head Feature Convention(see Gazdar and Pullum 1982) should ensure that only categories sharing all feature markings in common with

the exception of SLASH can co-occur in these configurations. It is assumed here, as has been proposed in Gazdar et al (1985: 165), that SLASH is a head feature. The comparative rule proposed above is not incompatible with the Head Feature Convention which only operates in the unmarked case and whose effects can be overridden by specific rule statements.

It is a consequence of this approach that strings such as the following are not to be found:

(13) (a) *Ci sono più uomini che belli (NP + AP).
there are more men than handsome

(b) *Cantano più armoniosamente che stonati (AdvP + AP).
(they)sing more harmoniously than out of tune

(c) *Guida meno macchine che bene (NP + AdvP).
(he)drives less cars than well

Data such as these show that just as in coordinate structures, comparative structures of this kind require the mother and the daughter to share features in common, however the crucial use of a SLASH dependency in the target of comparison in this analysis means that a total conflation of co-ordination and comparative structures is not possible.[2]

One further prediction to be made concerning the comparative rule in its present form is that only three kinds of phrasal categories participate in its instantiations as it stands at present, namely AP, AdvP and NP. The need for this condition to be imposed on the type of comparative structure seen so far can be established empirically by data such as those in (14):

(14) (a) *[S [S Ho lavorato meno] [S/Adv che ho dormito]].
(I)'ve worked less than (I)'ve slept

(b) *Maria [VP [VP ha mangiato più pasta]
M has eaten more pasta
[VP/NP che ne ha digerito]].
than of-it has digested

(c) *Ho parlato [PP [PP con più professori]
(I)'ve spoken with more teachers
[PP/Spec N' che con studenti]].[3]
than with students

These three examples show respectively that ungrammaticality results in comparative structures of this type if Ss, VPs and PPs are the constituents conjoined by the comparative rule. Data such as (14) (illustrating comparatives of inequality) should not be taken as an

indication that sentential constituents do not participate in other types of comparative structure which can be analysed along the same lines as co-ordinate structures. Consider for instance the following rule:

Sentential Comparative Rule: $X \longrightarrow \begin{matrix} X & X \\ [p_1] & [p_2] \end{matrix}$

where $p \in \{\langle$più, più$\rangle, \langle$più, meno$\rangle, \langle$tanto, quanto$\rangle\}$

$x \in \{s\}$

A rule of this sort could be used to instantiate comparative structures of the type shown in (15):

(15) (a) Più Maria vede Mario, più ella lo apprezza.
more M sees M more she him likes

(b) Tanto era intelligente la madre, quanto era
so-much was intelligent the mother as-much was
scemo il figlio.
stupid the son

However, since the main concern of this paper is the structure of the comparative of inequality, a detailed analysis of sentential comparatives is not included.

2.1 "Comparative Ellipsis" or Rule 2 for CHE

The comparative structures examined in the previous section provide justification for the tie-up between comparative structures with che and co-ordinate structures in general. The data examined in the previous section, however, did not include examples of the type shown in (16):

(16) (a) Maria ha più libri che io dischi.
M has more books than I records

(b) Luigi ha più libri all'università che dischi
L has more books at university than records
a casa.
at home

(c) Gianni è meno attaccato a sua moglie che a
G is less attached to his wife than to
sua madre.
his mother

(d) Ho studiato dettagliatamente più commedie di
(I)'ve studied in detail more plays of
Goldoni che di Gozzi.
Goldoni than of Gozzi

Comparative structures of the kind shown in (16) are generally referred to as examples of 'comparative ellipsis' in the generative literature. Lozano and Pinkham (1984) argue convincingly against this traditional approach for equivalent Spanish structures; to deal with these kinds of comparative, they formulate instead a rule schema within the framework of GPSG. Their analysis postulates a rule which is very similar to the Comparative Rule 1 formulated earlier, except in respect of the conditions to be attached to the constituents which can participate in comparative structures instantiated by this rule. In what follows, the Lozano and Pinkham analysis of Spanish data is adapted to the Italian data in (16). Again the basic rule schema is that which is associated with co-ordinate structures:

CHE Comparative Rule 2

$$X \dashrightarrow \begin{matrix} X \\ [p_1] \end{matrix} \quad \begin{matrix} X \\ [p_2] \\ [ELL] \end{matrix}$$

$p \in \{\langle$più, che$\rangle$, $\langle$meno, che$\rangle\}$

$X \in \{$ S, VP, PP, NP, AP, AdvP$\}$

(based on Lozano and Pinkham 1984: 5)

This rule states that as with CHE Comparative Rule 1, a category X will dominate two categories of the same syntactic kind. The first of these two constituents will contain the comparative operator più or meno and the other will be introduced by the operator che. The feature which requires justification in the above schema is the [ELL]; this means that the target of comparison introduced by che in these kinds of comparative cannot be a full realisation of X, but must instead be an elliptical or partial realisation of this constituent. As Lozano and Pinkham state: "The elliptical X ... of this rule... will dominate a series of major focused categories, which have as their only property that they cannot be identical in category to X ... [ELL]"(ibid 6). A rule like the following is proposed:

$$\begin{matrix} X \\ [ELL] \end{matrix} \dashrightarrow \begin{matrix} Y \\ [+FOC] \end{matrix} \qquad \text{where } X \neq Y$$

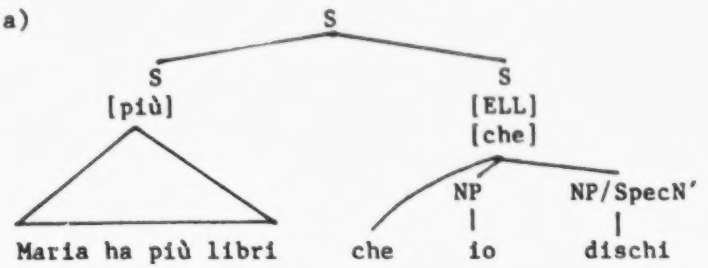
Essentially CHE Comparative Rule 2 accounts for data like (17) which show that in constructions of this kind conjunctions of exactly the same constituents are not to be found:

(17) (a) *[S [S Mario lavora più] [S che
M works more than
[S Paolo canta/lavora]]].
P sings/works

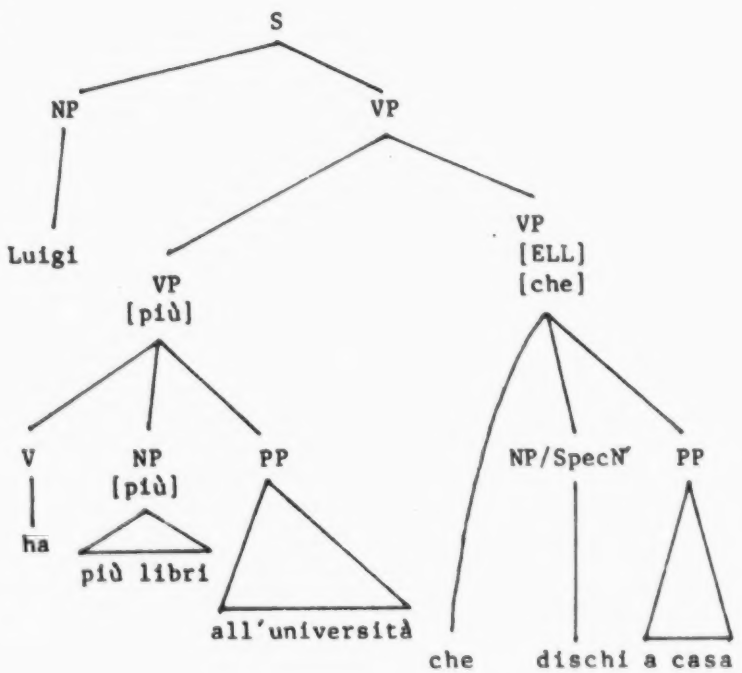
(b) *Maria [VP ha letto più libri] [VP che
M has read more books than
[VP ha scritto articoli]].
has written articles

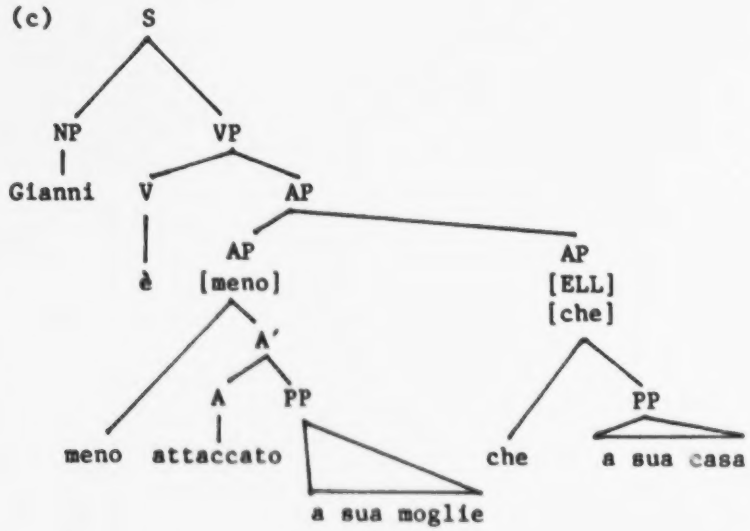
If the target of comparison is elliptical in the way specified by the rules above, then grammaticality results and sentences such as those shown in (16) result. Under (18), some of the tree structures instantiated by this rule are given:

(18) (a)



(b)





2.2 Problematic PP and NP Comparative Structures

In the previous section it was pointed out that the data in (9) (repeated here for convenience) were not to be accounted for by the CHE Comparative Rule 1 in its present form.

(9) (a) Questo gravissimo incidente è stato più un errore
this very-grave accident has been more an error
delle autorità municipali che colpa degli
of-the authorities municipal than fault of the
inquilini.
tenants

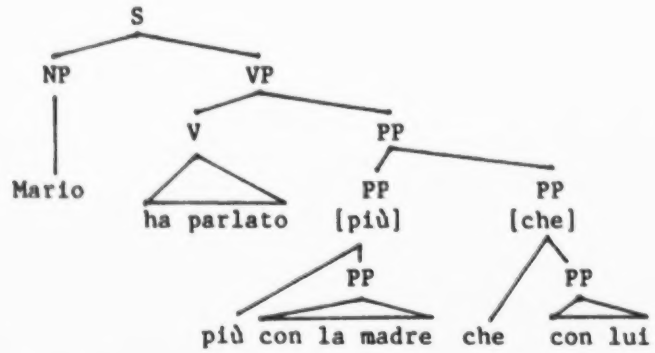
(b) E' meno sulla tovaglia che sotto
(it)is less on-the tablecloth than under
la tavola che si è sparso il vino.
the table that itself has spilled the wine

A close examination of these two examples illustrates why structures of this kind are problematic for the rule in question (at least in its first version). In (9)(a) it is clear that the comparative quantifier più is not generated under the SpecN' node as was the case in the tree (12)(a). Similarly (9)(b) is not instantiated by the rule as stated at present, because that rule makes no mention of PPs as being categories which participate in comparative structures of this kind. If a syntactically similar structure such as that in (19) is examined, it could be argued that the string is syntactically ambiguous:

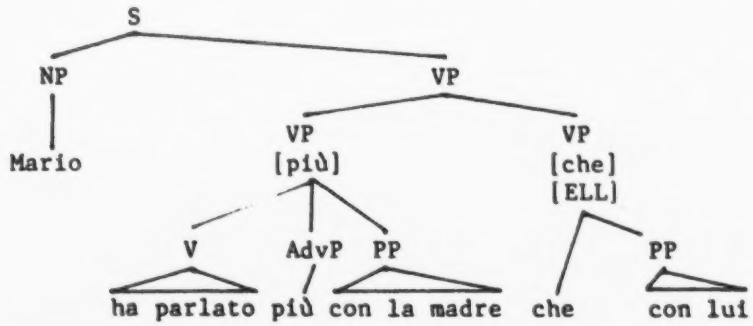
(19) Mario ha parlato più con la madre che con lui.
M has spoken more with the mother than with him

The surface structure shown here could be instantiated both by a modified version of Comparative Rule 1, giving the structure in (20), or by Comparative Rule 2, giving the tree structure in (21):

(20)



(21)



The distinct syntactic structures shown here can be intuitively felt to have different semantic interpretations. In (21) the scope of the comparative might loosely be said to include the verb (ha parlato: has spoken), while in the structural analysis given in (20) the comparative scope is restricted to the compared PPs. The structure in (20) also implies that the compared PPs form a constituent in their own right and therefore comparative PP structures of this type should be free to appear in the focus position of clefts, in dislocated structures, and in sentence fragments as do normal PPs. All these possibilities are illustrated in (22) below and it is worth noting that in these data only the reading in which the scope of the comparison is restricted to the PP is possible:

(22) Clefts

(a) E' più per la forma che per il fastidio che
(it)is more for the form than for the disgust that
mi dà che sto contestando la decisione.
(it)to-me gives that (I)am disputing the decision

(b) E' più nel suo giardino che all'università
(it)is more in his garden than at university
che vedo il mio capo.
that (I)see my boss

Dislocated Structures

(c) Più verso la piazza centrale che nella
more towards the square central than in+the
direzione della posta è dove
direction of+the post office is where
troverai i negozi.
(you)'ll find the shops

(d) Meno di sinistra che di destra mi sembrano
less of leftwing than of rightwing to-me seem
le idee politiche del nostro nuovo collega.
the ideas political of our new colleague

Sentence Fragments

(e) A. Ha sempre combattuto così contro il sistema?
(he)'s always fought so against the system

B.Non più contro di me personalmente che
no more against me personally than
contro il sistema in sè.
against the system in itself

(f) Meno con me che con sua madre, d'accordo, però
less with me then with his mother o.k. but
devo dire che si è comportato male anche
(I)must say that (himself) has behaved badly even
con me.
with me

The data in (22) are taken as indicative of the need to include PPs among the class of constituents which can participate in the CHE Comparative Rule 1. However, if PP was simply added to the class of structures which can be instantiated as heads by this rule, then there is apparently nothing in the formalism of the rule as it stands which would prevent the instantiation of ungrammatical strings such as (23):

(23) (a) *Ho parlato [$_{PP}$ [$_{PP}$ con più professori]
(I)'ve spoken with more teachers
[$_{PP/SpecN'}$ che [$_{PP/SpecN'}$ con studenti]]].
than with students

(b) *Ho fatto domanda a meno licei che a
(I)'ve made applications to fewer schools than to
scuole magistrali.
training schools

Suppose that the syntactic rules did instantiate comparative structures of the type illustrated in (23); such a position does not necessarily entail that the surface structure would be grammatical. Indeed the ungrammaticality of the strings in (23) may plausibly be explained by an independent constraint preventing the interpretation of empty categories contained within PPs. That PPs in Italian do not allow unbounded dependencies to pass through them is shown in the contrasting data here:

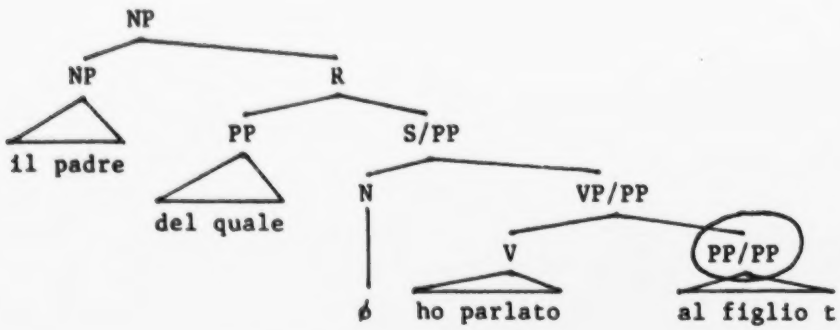
(24) (a) Il padre [$_{PP}$ del quale] [$_{S/PP}$ conosco
the father of whom (I) know
[$_{NP/PP}$ il figlio ---]]
the son

(b) Il padre [$_{NP}$ il figlio del quale]
the father the son of whom
[$_{S/NP}$ conosco ---]
(I) know

(c) Il padre [$_{PP}$ al figlio del quale]
the father to-the son of whom
[$_{S/PP}$ ho parlato ---]
(I)'ve spoken

(d) *Il padre [$_{PP}$ del quale] [$_{S/PP}$ ho parlato
the father of whom (I)'ve spoken
[$_{PP/PP}$ al figlio ----]]
to-the son

In order to account for the ungrammaticality in (24)(d), it might be proposed following Maling and Zaenen (1982) that a tree well-formedness condition of the from *PP/ α exists in Italian. This condition stops any dependency from passing through a PP node (a similar condition for French might be proposed based on the data discussed in Kayne 1975: 114). The same tree well-formedness condition, it might be maintained, could plausibly account for the ungrammatical data in (24)(d). As was said in the account given of the form of the target of comparison in comparatives instantiated by the present version of Rule 1, it is necessary to hypothesize the existence of an empty quantifier which modifies the head of the phrase. This empty position has been treated as a SLASH dependency instantiated between the node introducing the target of comparison and the head of the phrase (see Gazdar 1980: 172-77). Thus if we wrote out fully a tree structure for (24)(d) the following would result:



The circled node here is to be interpreted as a violation of the tree well-formedness condition which prevents SLASH being attached to PP. Interesting corroboration of this view (that it is the general islandhood of PPs in the Romance languages which prevents these kinds of comparative structures being instantiated) comes from French which, like Italian, does not allow structures equivalent to (24)(d):

(25) *Jean a parlé avec plus d'étudiants qu'avec
J has talked with more students than with
de professeurs
lecturers

On the other hand the syntax of English does not contain a similar well-formedness condition for PPs, hence the well known phenomenon of preposition stranding in that language. As a consequence of the possibility of allowing a SLASH dependency into PP, English also allows comparative structures whose syntax corresponds to that shown in (24)(d) and (25):

(26) (a) I spoke to more lecturers than to professors.
(b) He copied from less books than from newspapers.

Before considering the modifications which have to be made to the CHE Comparative Rule 1, it is necessary to show that structures such as those shown in (9) can also be accounted for within a single rule statement. NPs introduced by più/meno with overt lexical material other than these comparative quantifiers in SpecN' are grammatical in Italian and in (27) below there are a variety of such structures, all of which figure in contexts where only an overall NP analysis would be possible, but where SpecN' does not contain più/meno:

(27) (a) Sono più i tuoi libri che i suoi che mi piacciono.
(they)are more your books than his that to-me please

(b) E' più il tuo che tutti gli altri compiti
(it)'s more yours than all the other homeworks
che mi è rimasto impresso.
that to-me has remained impressed
(NP focus of Cleft Structure)

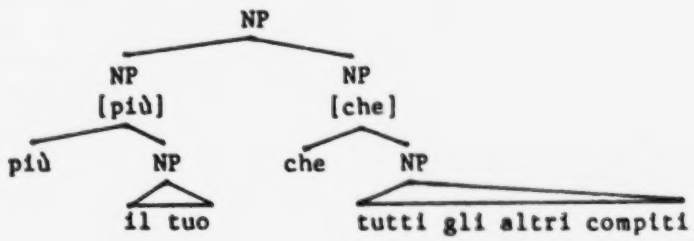
(c) A. Hai apprezzato tutti i quadri
(you)'veappreciated all the paintings
della mostra d'arte moderna?
of the exhibition of modern art

B.Si, però meno i quadri di Picasso
Yes but less the paintings of P .
che quelli di Braque.
than those of Braque.
(Sentence Fragment)

(d) Più i cavoli che le coste sono stati
more the cabbage than the beets have been
toccati dal gelo.
touched by-the frost (Subject NP)

It would seem that in (27) are found cases of comparative structures in which full NPs are conjoined. Notice in particular the NP of (27)(b) with the target of comparison tutti gli altri compiti; such a structure shows all the possible preN positions filled by lexical material. Therefore in an example such as this there can be no SLASH dependency into SpecN', and a structure such as (28) is proposed which resembles the structure (20) shown above for similar PP headed structures:

(28)



How then might structures such as (20) and (28) be incorporated into the CHE Comparative Rule 1? It is proposed that the form of the target of comparison be modified to allow not only X''/SpecX' categories to occur but also X'' constituents without SLASH. Therefore the final version of the rule will be:

CHE Comparative Rule 1 (final version)

$$X \text{ --) } X\,[p_2] \quad \alpha\,[p_2]$$

where $p \in \{\langle$più, che$\rangle, \langle$meno, che$\rangle\}$

$X \in \{A'', N'', Adv'', P''\}$

$\alpha \in \{X''/SpecX', X''\}$

As formulated, this rule would instantiate a string like:

(29) *Ho parlato con più professori che con studenti.
(I)'ve spoken with more teachers than with students

But, of course, this string would be ruled out independently by the *PP/α tree well-formedness condition discussed above.

The remaining problem with the formulation as it stands is that of 'mismatch' like in (30) where the head of the comparative has the quantifier più in the SpecN' position in the head and a full NP in the target of comparision:

(30) *Più uomini che tante donne hanno fatto domanda.
more men than so-many women have made applications

Structures such as these might plausibly be argued to be semantically ill-formed because of the absence of a SLASH dependency in the target of comparison. It is difficult to create convincing examples of the other kind of 'mismatch', namely that of più modifying a full N'' followed by a target of comparison of the form N''/SpecN'. Consider the examples in (31):

(31) (a) Ho mangiato più caramelle che dolci.
(I)'ve eaten more sweets than cakes

(b) Ho mangiato più le tue caramelle che i tuoi dolci.
(I)'ve eaten more your sweets than your cakes

(c) *?Ho mangiato più le tue caramelle che dolci[4]
(I)'ve eaten more your sweets than cakes

In Italian noun phrases consisting of a noun without any determiner are possible and these configurations generally have an indefinite interpretation. In (31)(c) it is possible to interpret dolci as just such an indefinite noun phrase, although this interpretation is somewhat unnatural (hence the grammaticality judgement). In accordance with the predictions made by this analysis that no SLASH dependency would be possible into the target of comparision in (31) (c), it is impossible to interpret dolci here in the same way as in (31) (a).

A further prediction made by this rule is that APs and AdvPs which are already modified by adverbials (the only constituents which can occur in specifier position in APs and AdvPs) might also be found in comparative constructions. Unfortunately it is very difficult to test for structures of this type because in general the adverbials found in specifier position in AP and AdvP are quantifiers and there are very strict restrictions on the co-occurrence of quantifiers within one single constituent. However it is plausible that structures like (32) are illustrative of targets of comparison which do not contain a SLASHED AP:

(32) (a) Sono più stanco che proprio distrutto.
(I)am more tired than really done-in

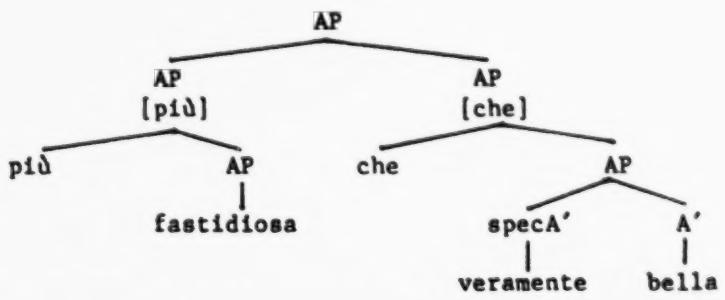
(b) E' stata una serata più faticosa che
(it)'shasbeen an evening more tiring than
veramente bella.
really pleasant

To illustrate that there is probably no SLASH in the target of comparison here, data such as (33) might be cited which show that an adjective modified by an adverbial such as proprio or veramente cannot be modified in turn by a quantifier:

(33) (a) Proprio distrutto (b) *Più/meno proprio distrutto
really done-in more/less really done-in
(c) Veramente bella (d) *Piu/meno veramente bella.
truly beautiful more/less truly beautiful

Therefore a tree structure like the one shown in (34) seems the most plausible for these examples:

(34)



A further set of data which potentially illustrate this type of comparative (where there is no SLASH in the target and where the head is a maximal lexical projection modified by the quantifier più) are these conjunctions of superlatives:

(35) (a) ?Mario è piùfurbissimo che proprio
M is more very-crafty than really
intelligentissimo.
very-intelligent

(b) ?E' una ragazza che mi pare più
(she)'s a girl who to-me seems more
truccattissima che veramente bellissima.
very-made up than truly very-beautiful

(Strict purists may frown upon the apparent illogicality of modifying a superlative in any way; in order to indicate this the examples are marked ?', although informants generally do accept these strings.) Used independently, superlatives cannot be modified by adverbial quantifiers:

(36) (a) *Più furbissima
more very-crafty

(b) *Molto furbissima
very very-crafty

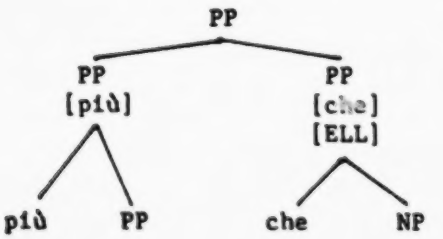
(c) *Tanto bellissima
much very-beautiful

(d) *Meno bellissima
less very-beautiful

Therefore it might be concluded that a comparative containing a superlative in one of its conjuncts is made up of two maximal lexical projections of AP, a possibility which is predicted in the final version of the CHE Comparative Rule 1.

Finally, in this section a problem with respect to PPs which as yet cannot be resolved might be signalled. CHE Comparative Rule 2, it might be predicted, should produce structures which have schematically the following form:

(37)



However structures of this type are less than perfect, and there is a definite preference for structures with no ellipsis of the preposition, although informant judgements tend to vary somewhat depending on the preposition used. Consider the data in (38):

(38) (a) ??E' più da sua madre che suo padre
(it)'s more by his mother than his father
che Giorgio è stato influenzato.
that G has been influenced

(b) (preferred reading of (a)) E' più da sua madre
che da suo padre che Giorgio è stato influenzato

(c) ?E' più come attore che autore che quel
(it)'s more as actor than author that that
personaggio è celebre.
person is famous

(d) (preferred reading of (c)) E' più come attore
che come autore che quel personaggio è celebre.

3.0 Comparative Structures with DI

In the introduction, attention was drawn to the existence of a type of comparative structure in which the target of comparison is introduced by di and not by che. In this section it is to be demonstrated that these types of comparative structure are instantiated by a rule schema which is distinct from that used for the Comparative Rules 1 and 2 seen in Section 2. Therefore the crucial proposal in this part of the survey is that a third rule for the syntax of comparatives of inequality must be postulated in order to account for data of the form shown in (39):

(39) (a) Maria è più alta di Paolo.
M is more tall than P

(b) Maria studia più seriamente il francese
M studies more seriously (the) French
di Giovanni.
than G

(c) C'è più vento oggi di ieri.
(there)'s more wind today than yesterday

What is the category status of the targets of comparison shown here? Di is generally analysed as a preposition and a number of factors in the behaviour of targets of comparison introduced by di point in the direction of these constituents being PPs in status. Firstly prepositions in Italian do not assign nominative but oblique case; therefore the overt nominative pronouns of Italian (io, tu, etc...) cannot be governed by a preposition, but the corresponding oblique forms (me, te etc...) are found in such configurations. This general characteristic of PPs is also to be found in comparative targets of the type which interest us here:

(40) (a) Maria è più intelligente di *io/me.
M is more intelligent than I/me

(b) Gli altri hanno lavorato più seriamente di *tu/te.
the others have worked more seriously than you/you

Data such as (40), besides giving justification to the view

that the targets of comparison here are PPs, could also be used to argue against the proposal (potentially possible) that di targets of comparison are reduced clauses. If were reduced clauses then the pronouns in (40) (which are interpreted as subject arguments) would be expected to appear with nominative case marking.

Although the rules proposed in Section 2 do predict the possibility of structures like (41), informants do not like them, preferring the strategy which instantiates a target of comparison with di:

(41) (a) *Maria è più intelligente che io.
M is more intelligent than I

(b) *Paolo è meno intelligente che tu.
P is less intelligent than you

However, targets of comparison introduced by the item che can contain non in stylistically marked registers. The presence of this negative operator seems to improve data like those in (41):

(42) (a) Maria è più intelligente che non io.
M is more intelligent than (not) I

(b) Paolo è meno intelligente che non tu.
P is less intelligent than (not) you

That the pronominal forms here are nominative and not oblique is a strong argument against giving che the same prepositional status in comparatives as di. Here indeed a reduced clause analysis (like that given by CHE Comparative Rule 2 would seem appropriate

A further characteristic of PPs which might be invoked at this point is the simple distributional fact that prepositions do not govern APs or AdvPs but only NPs (laying aside structures such as contro di me (against me) for ease of exposition). This generalisation is found to hold with respect to targets of comparison which are introduced by di:

(43) (a) Mi piace più la pasta de[$_{NP}$ l dolce].
to-me pleases more the pasta than the cake

(b) C'era più vento il mese scorso di [$_{NP}$ questo mese].
(there)was more wind the month last than this month

(c) *E' più intelligente di [$_{AP}$ studioso].
(he)'s more intelligent than studious

(d) *Lavorava più rapidamente di [$_{AdvP}$ seriamente].
(he)worked more rapidly than seriously

(e) *Parla più spesso con suo padre di [pp con lui].
(he)speaks more often with his father than with him

That it is the conditions on the type of constituent which di can govern which causes the structures in (43) to be ungrammatical and not any special conditions to be attached to the form of the comparative clauses is shown by the data in (44), where similar comparative structures with targets introduced by che are possible (no English gloss is included: see glosses in (43)):

(44) (a) Mi piace più la pasta che il dolce.

(b) C'era più vento il mese scorso che questo mese.

(c) E' più intelligente che studioso.

(d) Lavorava più rapidamente che seriamente.

(e) Parla più spesso con suo padre che con lui.

Finally the behaviour of comparative targets introduced by di with respect to WH constuctions is again to some extent indicative of their PP status. This is the conclusion to be drawn from data like (45) which show that targets of comparison introduced by di can be fronted to form WH questions; this is a general characteristic of all phrasal categories in Italian:

(45) (a) Di chi è più alto Mario ____ ?
than whom is more tall M

(b) Di quale film sembra più interessante
than which film seems more interesting
quel libro ---?
that book

There are however no equivalent relative data for these shown in (45):

(46) (a) * Mario, di cui Paolo lavora più
M than whom P works more
seriamente ---, è bravo
seriously is clever

(b) *Quella poesia della quale non c'è niente
that poem than which (not) there is nothing
di più bello.
more lovely

Why there is this gap in the WH-paradigm cannot as yet be explained.

In contrast to the data shown in (45), targets of comparison introduced by che are never potential targets in

WH constuctions, a feature which can be construed as meaning that unlike di introduced targets of comparison, these ones are not phrasal in category status:

(47) (a) *Che con chi esce più spesso
than with whom (she)goes out more often
con Rodolfo ---?
with R
(O.K. Esce più spesso con Rodolfo che con me.
(she)goes out more often with R than with me)

(b) *Che quanto pratica era più geniale
than how practical was more genial
l'idea ---?
the idea
(O.K. L'idea era più geniale che pratica.
the idea was more genial than practical)

3.1 A Comparative Rule Introducing DI

It is proposed that comparative stuctures with di of the type examined in 3.0 will be instantiated by a rule of the following form:

$$X'' \text{ ----) } X'' \quad P''$$
$$[p] \quad [di]$$

X = any phrasal category
$p \in \{\langle più\rangle, \langle meno\rangle\}$

This rule is designed to capture the generalisation that comparatives of inequality can realize their target of comparison with a P'' introduced by the preposition di. The reason for writing the rule as being instantiated at the level of X'' is that the whole comparative phrase (head plus target) can be found to behave as a single constituent with respect to focussing (48) and clefting (49):

(48) (a) Più spesso di Giovanni ci sono andato io.
more often than G there have gone I

(b) Meno intelligente di Paolo sembra la nostra
less intelligent than P seems (the) our
piccola Maria
little M

(49) (a) E' più spesso di Giovanni che ci
(it)'s more often than G that there
sono andato io.
have gone I

(b) E' meno intelligente di Paolo che sembra
(it)'s less intelligent than P that seems
la nostra piccola Maria.
(the) our little M

Data such as these show that the di target of comparison is syntactically part of the comparative phrase. The semantics of the rule will however require that the target of comparison be interpreted as having a noun phrase role in the sentence which immediately contains the X'' instantiated in the above rule. Consider the following interpretations:

(50) Comparative structure

(a) Maria è più intelligente di Elena.
M is more intelligent than E

(b) Mangio la pasta piu volentieri del dolce.
(I) eat pasta more willingly than cake

(c) Hanno più scelta questo mese del mese scorso .
(they)'ve more choice this month than month last

Interpretation of the di Target

(a)' Elena è (quantifier) intelligente.
E is intelligent

(b)' Mangio (quantifier) volentieri il dolce.
(I) eat willingly the cake

(c)' Avevano (quantifier) scelta il mese scorso.
(they)had choice the month last

Therefore the semantics of this rule (a question not being dealt with explicitly here) will require information about the sentence containing the X'' comparative phrase in order to permit a full interpretation to the PP[di] target of comparison. It is worth underlining at this point that di can be used to introduce any target of comparison which could be interpreted as meaningful in the sentence containing the comparative; that is to say such an NP can have subject, object or adverbial function (providing the adverbial is of NP form). It might be added at this point that the che of relative structures shares an identical distribution (see Cinque 1981).

3.1.1 Restrictions on the distribution of comparative targets introduced by DI

3.1.1.1 Collocation Restrictions

It seems that the target of comparison introduced by di can be interpreted incorrectly if it follows certain NPs or APs. The tendency in such cases is to interpret the di phrase not as a target of comparison but as a complement to the preceding head. Consider the pair of sentences in (51):

(51) (a) Maria studia più seriamente di Claudio.
M studies more seriously than C

(b) ??Maria studia più seriamente il francese
(i)M studies more seriously the French
(ii)M studies more seriously the French
di Claudio
of C
than C

The example (51) (a) is perfectly acceptable but (51) (b), which essentially has the same syntactic structure with respect the the comparative rule, is considered to be somewhat ambiguous and not perfectly acceptable as a comparative. This ambiguity is due to the fact that the PP di Claudio is more naturally interpreted as a complement of the NP il francese. A simple change of word order can resolve this problem of interpretation:

(52) Maria studia il francese più seriamente di Claudio.
M studies the French more seriously than C

The same problems can be identified and resolved by word order changes in the following example:

(53) (a) ??Giovanni teme più l'amore dell' odio.
G fears more love than/of hate

(b) Giovanni teme l'amore più dell'odio.
G fears love more than hate

That what makes the first of the sentences less than perfect is simply a question of surface ambiguity is illustrated by data like these in (54) in which the collocation of NP and di NP could not be ambiguous and in which both word orders are considered equally acceptable:

(54) (a) Ho visto più spesso Mario di sua madre.
(I)'ve seen more often M than his mother

(b) Ho visto Mario più spesso di sua madre.
(I)'ve seen M more often than his mother

(c) Ho visitato più volentieri gli Uffizi di
(I)'ve visited more willingly the Uffizi than
palazzo Pitti.
Pitti Palace

(d) Ho visitato gli Uffizi più volentieri di
(I)'ve visited the Uffizi more willingly than
palazzo Pitti
Pitti Palace

It is interesting to note that when ambiguity of the di comparative arises because of word order problems, there is

a definite preference among informants to formulate the sentence with che introducing the target (see also (7)):

(55) Giovanni teme più l'amore che l'odio.
G fears more love than hate

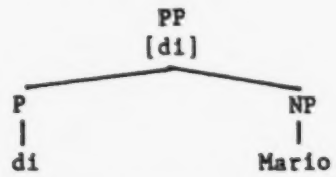
An interesting hypothesis to draw from these data is that speakers have the following strategy with respect to comparatives: the rule introducing di targets is to be preferred, but when it cannot apply, for instance because of the non-NP status of the target or when its application would produce surface ambiguity, then the rules introducing che in comparative targets are used.

3.1.1.2 An Apparent Gap in the Paradigm of DI Comparatives?

So far only di comparative targets of the type shown in (56) have been examined:

(56) (a) Maria è più grossa di Mario.
M is more big than M

(b)



The data in (57) illustrate examples of comparative structure whose targets of comparison contain SLASHED noun phrases. In these cases it is to be remarked that there are no equivalent structures with di:

(57) (a) Sono stati letti più libri che articoli.
have been read more books than articles

(b) *Sono stati letti più libri di articoli.
have been read more books than articles

(c) Marco ha mangiato più pasta che formaggio.
M has eaten more pasta than cheese

(d) *Marco ha mangiato più pasta di formaggio.
M has eaten more pasta than cheese

This difference in behaviour can be dealt with by reference to the well-formedness condition imposed on PPs which forbids them to be part of a SLASH dependency (see discussion in 2.1). As (56) shows, comparative targets with di are syntactically PPs, but the examples in (57) show comparative targets which require a SLASH dependency. This can be instantiated with no problem by using the CHE

Comparative Rule 1, giving a structure of the following form:

[NP [NP più libri] [NP/SpecN' che [NP/SpecN' t articoli]]]

On the other hand a structure such as (56)(b) cannot be instantiated firstly because the rule instantiating di comparatives states that the target of comparison in these cases is a PP and nothing else, and secondly because to allow a SLASHED PP would constitute a violation of the well-formedness condition *PP/α shown by the circled node in the following :

[NP [NP più libri] (PP/SpecN') di [NP/SpecN' t articoli]]

Therefore the data in (56) are not a problem for the analysis proposed here and indeed the array of grammatical and ungrammatical structures follows as a natural consequence of the rule systems already proposed.

FOOTNOTES

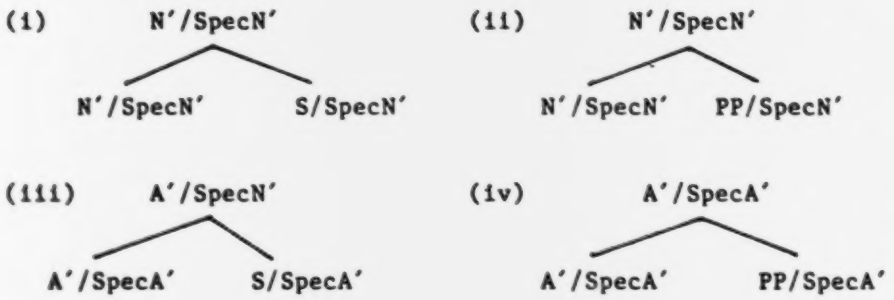
* I recognise my debt to J. Pinkham whose work on comparative structures in French, Spanish and English (see Pinkham 1982 and Lozano and Pinkham 1984) has been of crucial importance in helping me organise the Italian comparative data. I would like to thank Steve Harlow and Anthony Warner for their help in preparing this article. I am particularly grateful to Simona Rizzardi and Giulio Lepschy for discussion of the data presented. All errors and inaccuracies are my own.

1 The preposition di (of) in Italian combines with the forms of a following definite article (il, la, i, le) to produce the following forms: di + il(masc. sing.) = del, di + la(fem. sing.) = della, di + i(masc. pl.) = dei, di + le(fem. pl.) = delle.

2 This analysis leaves open the possibility that, at a very abstract level, comparative and coordination structures may share the same basic rule schema. This possibility was hinted at by G. Gazdar in a talk given at the LAGB 1984 Spring meeting at Hull.

3 This ungrammatical string should be distinguished from the grammatical Ho parlato più con professori che con studenti (see section 2.3). The close similarity of (14)(c) and this example may explain why (14)(c), although considered ungrammatical, is not judged by informants to be as "bad" as (14) (a) and (b).

4 Intuitively it is being claimed here that the two parts of the comparative must be symmetrical; that is to say a maximal lexical projection quantified by a comparative operator must have a target of comparison which is a maximal lexical projection and in a similar fashion an N'', A'' and Adv'' containing a comparative operator in its SpecX' must be paired with a SLASHED target of comparison for it to be interpretable.
The idea that symmetry is required between the two parts of a comparative would deal with a difficulty brought to my attention by Anthony Warner. By analysing SLASH as a head feature, my analysis not only allows SLASH to be instantiated on the Head of the target of comparison, but also, theoretically at least, on any complement to the head. Therefore targets of comparison of the following kind might be instantiated:



Some of these structures could, however, be ruled out by the grammar for independent reasons. (i) and (ii) could be dealt with by whatever mechanism is proposed for the grammar to deal with data traditionally covered by the 'Complex Noun Phrase' constraint. (ii) and (iv) would also be ruled out by the well formedness condition preventing dependencies into PP, (iii) remains a problem. If instead of treating these examples separately, we invoked the claim that the two parts of the comparative structure must be symmetrical then we have an independent reason for not allowing a second SLASH dependency to be introduced into the target of comparison.

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